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P.S. Chiaro
Vice President Environmental Affairs

W Hedberg

M/035/002

Kennecott

August 25, 1993

Mr. Lowell Braxton
Div. of Oil, Gas & Mining
3 Triad Center - Suite 350
Salt Lake City, UT 84101

Dear Lowell:

On August 12, 1993, Kennecott received a letter from Deputy Administrator Robert Sussman of the U.S. Environmental Protection Agency (EPA) informing Kennecott that EPA was terminating negotiations on a consent decree covering the company's voluntary cleanup program at our Utah Copper facility.

I'd like to describe the series of events which lead to this decision. Kennecott approached EPA and the Utah Department of Environmental Quality (UDEQ) with a non-traditional cleanup proposal in early 1991. Kennecott's objective was to find an expedited process for making environmental improvements to its property as part of an overall modernization program. As you recall, on April 2, 1992, Kennecott, EPA, and the UDEQ announced an agreement in principle which provided a framework for an enforceable legal agreement governing the cleanup of the Utah Copper operations.

Intensive and difficult negotiations followed that announcement. While a technical committee made up of representatives from the three parties were able to agree on virtually all of the technical and engineering terms of the cleanup process months ago, Kennecott, EPA, and UDEQ have been unable to reach agreement on legal terms.

While the negotiations were in progress, Kennecott completed a number of cleanup projects and several more are currently underway (see enclosed). Rest assured that we are committed to continue this work. We hope to continue a cooperative relationship with the EPA and UDEQ to complete the cleanup as quickly as possible.

While the cleanup progresses, it is possible EPA could revert to their traditional cleanup process by proposing Kennecott for listing on the National Priorities ("Superfund") List (NPL). We believe an NPL listing is unwarranted and unnecessary and could significantly delay, rather than expedite our cleanup. It would likely increase the funds (including taxpayer dollars) spent on legal fees and unnecessary administration at the expense of real cleanup. By continuing to pursue voluntary cleanup, this is what we hope to avoid.

We believe it is still possible to streamline the cumbersome Superfund process. Despite the fact that negotiations have been terminated, Kennecott, EPA, and UDEQ did make progress that can be incorporated into an approach to cleanup that is not only environmentally sound, but cost-effective and expeditious.

The cleanup progress Kennecott has made has been successfully completed either under site specific agreements with EPA or, in many cases, without the need for any unwieldy legal agreements. In all cases, EPA and UDEQ have been kept fully informed of the details of the work, and in most cases they have provided direct oversight of our efforts and have indicated their satisfaction with the work undertaken. We are confident that this site specific approach, rather than the traditional cleanup process, is the best way forward.

I would like to invite you to meet with me and other Kennecott representatives to discuss our plans to proceed with the cleanup projects on our Utah Copper property and also to answer your questions. Please join us at 7:00 p.m. on Tuesday, August 31 in the Salt Lake County Commission Chambers, 2001 South State.

I look forward to seeing you there.

Sincerely,

Preston S. Chiaro

Preston S. Chiaro

PSC/jhl
Enclosure

Kennecott

Kennecott Utah Copper
Cleanup Projects Completed or Underway

ENVIRONMENTAL UPDATE
Summer 1993

State of the art liner system at large Bingham reservoir

LARGE BINGHAM RESERVOIR SLUDGE REMOVAL

BACKGROUND

The Large Bingham reservoir was constructed at the mouth of Bingham Canyon in the 1960's to store all waters from Bingham Creek as well as leach water generated from the mine waste dumps. It was constructed with a liner of natural, low permeability soils. As a result of a Kennecott-funded study beginning in the mid-1980's, it was found that waters were leaking from the reservoir, primarily from the sides rather than the bottom. Kennecott has managed the water level in the reservoir at a low level since 1986 to minimize such leakage. This leakage, along with natural contributions of contaminants from the mineralization in the Oquirrh Mountains and other sources, has contributed to groundwater contamination east of the reservoir.

In 1990, Kennecott built a smaller, double-lined reservoir to store excess leach waters and prevent them from flowing into the Large Reservoir. The Large Reservoir was drained, and the sludge that has accumulated in it is now being removed.

PROJECT STATUS

In February of 1992, Kennecott completed draining the remaining waters from the Large Reservoir and began removing more than 3,000,000 cubic yards of sludge and copper tailings. These materials were tested and found to be non-hazardous. As of June 1993, the excavation of the sludge is 80 percent complete. The cleaned portion of the reservoir been lined with a state-of-the-art liner system to hold the storm water before it is returned to the mining and milling operations.

The sludge has been selectively placed within the Bingham Canyon Mine waste rock dumps, which drain into the existing leach collection system. These areas are being recontoured, covered with topsoil and revegetated. The sludge removal is expected to be completed later this year. The lower portion of the large Reservoir will also be lined using the same sophisticated liner system. The project also includes the rehabilitation of a large pump station.

BUTTERFIELD WASTE ROCK RELOCATION

BACKGROUND

Mine development rock, which was placed in and along the Butterfield Canyon stream bed, was generated from the construction of the Butterfield drainage tunnel by a mining operation which pre-dates Kennecott. The canyon is a popular recreational area for the public, including those who travel along the Oquirrh Loop leading over the Oquirrh Mountains to Tooele. Kennecott was to relocate the waste rock and reclaim the area. In 1992 Kennecott and EPA entered into an agreement which provided EPA oversight for this project.

PROJECT STATUS

Approximately 900,000 cubic yards of waste rock were excavated from along the stream and relocated into a monitored repository at the toe of the Castro Gulch waste rock dumps. The county road and a natural gas pipeline were relocated. Recontouring, planting, and other reclamation work have also been completed. Seeded areas have been fenced to allow the vegetation to take hold.

Kennecott received an Earth Day award from the Utah Department of Oil, Gas and Mining for this restoration project. Butterfield Canyon has been returned to near original condition for the use and enjoyment of all.

BINGHAM CREEK TAILINGS

BACKGROUND

Contaminated soil in the Bingham Creek area was formed as a result of lead tailings deposited in Bingham Creek by about two dozen lead mining and milling companies that operated in the area from 1874 to 1930. Although Kennecott never milled lead ore in the Bingham Canyon Mining District, the contaminated soils are partially on property Kennecott now owns. In May of 1991, Kennecott announced that the State of Utah and the U.S. Environmental Protection Agency had agreed

to accept its voluntary offer to pay f[redacted]e cleanup of contaminated soils in the Jordan View Estates area. The Environmental Protection Agency completed the residential area work in 1992. Kennecott completed the construction of a repository to hold the contaminated materials. During 1992, Kennecott continued to clean up portions of the Bingham Creek channel. For example, Kennecott voluntarily cleaned up the stretch of Bingham Creek near Holy Cross Jordan Valley Hospital at 9000 South and 3600 West, just upstream from last year's removal action. Kennecott and EPA completed the work last August. Additionally, Kennecott removed contaminated sediments from a series of ditches and a pond located along the upper reaches of Bingham Creek. Kennecott placed the tailings and sediments removed from these areas in the same repository as the residential area tailings.

PROJECT STATUS

Kennecott is now working to clean up tailings located on the north side of Bingham Creek west of Highway 111 and in the lower reaches of the channel upstream from Holy Cross Hospital.

Kennecott began the tailings removal west of Highway 111 last year, and will complete the removal in this stretch of the channel in 1993. Removal work downstream from 4800 West will also be completed in 1993. ARCO is also participating in the cleanup since they own one of the companies that generated some of the lead tailings. ARCO is concentrating its efforts on the lower-most reaches of Bingham Creek, east of 3200 West.

Work remaining to be completed next year includes the stretch of Bingham Creek from 4800 West upstream to Highway 111. Kennecott and ARCO will share responsibility for this removal effort. In addition, ARCO will address several large lead tailings ponds it owns west of Highway 111 and south of Bingham Creek channel.

Kennecott and ARCO are also funding a health study being conducted jointly by the Salt Lake County Health Department and the University of Cincinnati. The purpose of the health study is to measure lead and arsenic concentrations in the bodies of children living near Bingham Creek, and to determine the cause of any elevated levels that may be found. Children are the population group of most interest, since they are most susceptible to the effects of metals poisoning. Similar studies conducted in other mining communities have showed little or no connection between metals levels in mine tailings and metals levels in childrens' bodies.

LARK AREA

BACKGROUND

The Lark area contains two types of mine wastes: waste rock and tailings. These materials are spread over an area of about 450 acres on land now owned by Kennecott. The Lark waste rock and ta[redacted]gs were generated by the Ohio Copper Company and the U.S. and Lark Mine.

Vegetation that once covered large areas of the Lark tailings was destroyed when the State of Utah leased the property from Kennecott and operated the site as a motorcycle park. Most of the Lark tailings was reprocessed and has very low metals concentrations, typical of soils in the area. There are, however, a few "hot spots".

PROJECT STATUS

Kennecott has begun moving the Lark waste rock piles to the toe of its copper mine waste rock dumps, where they will be buried. This location is within the Kennecott leach collection system, so any leach waters generated by the rock would be captured and processed by Kennecott.

"Hot spots" within the Lark tailings have been excavated and disposed in the permitted tailings waste repository in the Bluewater drainage. The remainder of the Lark tailings have been consolidated, are being covered with calcium carbonate-rich soils, and will be revegetated to prevent wind-borne transport of dust from the tailings.

EAST SIDE COLLECTION SYSTEM

BACKGROUND

Kennecott has collected leach waters from the base of the copper mine waste rock piles for decades. The leach water, which is acidic due to natural chemical reactions within the rock piles, is processed to recover the dissolved copper and is then recycled back to the waste rock piles. Kennecott has continually been improving the leach collection system to maximize capture of leach waters. The latest series of improvements includes the detailed evaluation of geologic formations in each of the 22 drainages which emanate from the base of the waste rock piles and the construction of cutoff structures to more completely intercept and capture the leach waters and storm waters which flow from the area.

PROJECT STATUS

Kennecott has begun its leach collection system improvements at the north end of the waste rock piles and is proceeding with the geologic investigations, waste rock removal, and cutoff structure construction. To date, Kennecott has installed numerous ground water monitoring wells, has relocated over 1,000,000 cubic yards of waste rock and other debris back to the main waste rock piles, and has completed eight of the improved cutoff walls. Five additional cutoff walls are under construction. Kennecott has also completed a new roadway and canal alignment for an extension of the leach collection system to the far south end of the waste rock piles, within Butterfield Canyon. Geologic investigations are underway at the mouth of Bingham Canyon to ensure that all contaminant flow paths have been identified and controlled.